Energy costs crisis faces club industry







Airport success points to savings

Club managers Australia wide must slash energy usage in the face of a 35% energy price hike across the past three years and predictions of 10% yearly increases for the foreseeable future.

In July this year energy costs in Brisbane rose by 13% - an overnight \$60m impost for the State's businesses. In other states the July rise varied from 5-13 depending on supplier but no one was spared.

The difficulty clubs face is researching energy saving technologies or finding a comparable business that has already done the research. Managers simply cannot commit to major capital expenditure on the basis of a sales spiel.

Club Manager's News has endeavoured to do some of the hard work for our indusrty and believes that Melbourne International Airport is an extremely good model.

Large metal roof area, long operating hours, high volumes of people, a range of kitchens and heat generating equipment ... that could



describe any club in Australia but it also describes the airport.

Melbourne International Airport handles 22 million passengers a year and sees 180,000 aircraft movements. It is highly regarded nationally for the quality and consistency of its maintenance and improvements programme.

When the airport sought to address energy consumption and passenger comfort issues its research pointed to SkyCool, an Australian developed, paint-on, roof protection polymer that not only reflect heat but also sucks heat from a building.

All of the independent testing and research on the SkyCool product showed an average saving of 40% on air conditioner running costs after application.

With its additional benefits of prolonging the life of a metal roof as a result of its resistance to water penetration and protection from airborne corrosion, Skycool seemed to be the answer



Melbourne Airport commissioned the application to its 42,000 sqm roof as a three stage process with no interruptions to business and saw immediate results.

During the summer period before SkyCool was applied, the terminal building required four central chillers operating at around 100 per cent capacity. Now, three chillers running at around 80 per cent capacity fulfill the terminal's needs. Also the 16 auxiliary airconditioning units previously used were no longer required.

Importantly complaints from First Class passengers in the International Lounge stopped yet previously even a second air conditioning unit was not coping in the area.

The airport's research calculated that SkyCool was reducing greenhouse gas emissions by 40,000 tonnes a year.

Wynnum Manly Leagues Club Chairman Arthur Lovell confirmed that his club had committed to SkyCool on the basis of the Melbourne Airport experience and had subsequently staved off a multitude of problems and saved \$250,000.





HOW WE SAVED \$250,000

Manly Wynnum Leagues Club reveals the secret that saved them from massive heart ache



How did a major club with a leaking roof save itself more than a quarter of a million dollars just by painting? What has a state so excited that two levels of Government are looking at the club's lead?

The chance reading of a Club News article about smart paint company SkyCool has resulted in the 18,000 member Wynnum Manly Leagues Club saving more than a quarter of a million dollars and attracted the interest of both Local and State Government.

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Clubs save millions by slashing heat

Clubs and commercial building owners
Australia-wide are savings millions
of dollars in energy costs, prolonged
maintenance cycles and deferred roof
replacement costs thanks to an Australia
developed spray-on polymer.

- Castle Hill RSL saved more than \$500,000 by deferring roof replacement costs
- The Mounties Club in Mount Pritchard saw its power bills slashed by 50%
- Club Menai used independent energy auditors to prove a saving of more than \$13,000 in energy costs for a mere seven months period.
- Manly Wynnum Leagues Club's savings on roof repairs and air conditioning expansion topped \$250,000 before it even took into account reduced energy bills.

Other clubs already enjoying SkyCool savings include:

- Belrose Bowling Club
- Cabramatta Bowling & Recreation Club
- Ingleburn RSL

Pittwater RSL

Ryde Eastwood Leagues Club

The hero product, SkyCool, is designed not only to protect steel roofed commercial buildings from solar radiation, but to extract heat from within the building while providing protection for the roofing material.

It has been tested by universities in Australia and independent testing authorities in the United States with such outstanding results that the Skycool client list in Australia reads like a corporate and institutional who's who.

Just a cross section of these clients includes:

Amcor, Anglican Aged Care, ANZ Bank, Bovis Lend Lease, BP Australia, CFMEU, Country Energy, Daimler Chrysler, Darwin Airport, Department of Defence, Fujitsu, Honda Australia, Linfox Property Group, Macquarie Bank, McDonalds, Melbourne International Airport, Metcash, Office Choice, Queensland Dept of Public Works, South East Water, Target Australia, Telstra, Westfield and Woolworths. While results vary minimally from project to project, SkyCool results from tests and field trials show that an unprotected roof's temperature of 56 degrees C would be 33 with SkyCool applied while the respective interior temperatures under those roofs would be 41 and 27.5 degrees.

So outstanding are the SkyCool results that one of Australia's leading solar power companies, Clear Solar recommends SkyCool coating a roof before installing a solar power unit as the roof's reflection properties will be enhanced for greater power output

Independent testing in the United States by Solar Light Incorporated showed that even under the most extreme tropical UV light the coating was unaffected after 10 years while after 25 years it showed discolouration but no breakdown in

Energy saver paint process for laymen

Reflective paints are not new and enjoy various levels of success. SkyCool's system is a radical departure that has quite literally astounded testers in Australia and the US.

According to the CSIRO's ECOS publication it "almost defies the conventional laws of physics."

The CSIRO report confirmed that SkyCool's profound cooling effect can halve the running costs of mechanical air conditioning in buildings with metal roofs. It went on to say:

"Tests conducted by Professor Geoff Smith of the University of Technology, Sydney,

and Professor John Bell of the Queensland University of Technology showed that the coating eliminates heat gains through roofs due to an unusual combination of two properties.

"The coating has both high solar reflectance (85%) and high thermal emittance (more than 94%). The high solar reflectance means that only a small fraction of incoming solar energy is converted to heat by the roof, the rest being reflected. High thermal emittance results in a lot of heat being lost by radiation from the roof and even drawn from the building below.

"This unique combination of properties has, until now, proved elusive because coatings

with high thermal emittance are usually black or dark coloured.

"SkyCool, however, has a split personality. It is 'white' at solar wavelengths (low solar absorbance) and 'black' at thermal wavelengths (high radiative capacity).

"The coating acts as a 'passive heat pump', cooling the roof and taking the building's interior to below ambient temperature – just by being there."

SkyCool proves itself in 120 year record deluge

FROM PAGE 1

Wynnum Manly Leagues Club Chairman, Arthur Lovell, unwittingly started a domino effect when his eye was caught by the story on the SkyCool energy saving paint system.

"The article was about the product and effects and normally I would only have glanced at it but I noticed it had been used at Melbourne Airport and I knew that their maintenance program was spot on and their roof similar to ours." Arthur recalled.

Ironically, SkyCool is promoted for its heat reducing properties and dramatic energy saving impacts for commercial buildings whereas Arthur was more concerned with his leagues club's leaking roof.

Not one to die wondering, he assigned club director and leading Brisbane bricklayer Lew Doyle and the club's plumbing and maintenance guru Cyril Green to go to Sydney and investigate the product.

"This pair is not too easily led and when they returned shouting the benefits of SkyCool I acted, ringing the company and asking for a quote for our Leagues Club Roof.

"I was more than impressed when they rang back just 45 minutes later with what proved to be a very accurate quote that they had costed by simply working out the roof's dimensions via Google Earth," Arthur said.

With the quote less than half of what the club had previously been quoted to repair a roof that had seen many unsuccessful waterproofing attempts over the years, SkyCool got an almost immediate go-ahead.

When the three-day application process was only 30% complete the club was so impressed that the directors took the decision to have SkyCool quote on their two other clubs, the Wynnum Manly Workers Club and the Wynnum Manly Bowling club, both of which had problems.



"The Workers Club had a problem central channel gutter that would overflow so we filled and diverted it and used SkyCool to seal and waterproof the roof. The Bowling Club had inconsistent heating and cooling.

Arthur is well aware that waterproofing is not SkyCool's main claim to fame, rather that the smart paint coating is primarily used to reflect heat, reduced internal temperatures and save significantly on energy costs.

"It has made a significant difference on the efficiency of our air conditioning in all clubs but we have not yet measured any energy savings," Arthur said.

"What we do know is that we are no longer getting complaints about problem areas such as the poker machine room that was always too hot.

Prior to the SkyCool application the club was facing a \$353,000 bill - \$140,000 for additional air conditioning and \$213,000 to replace the Leagues club roof. The SkyCool application for both the Leagues and Bowls clubs was only \$101,000 – an immediate saving of \$252,000.

Arthur said that energy cost savings would be a bonus but that his members were delighted leaks were no longer a problem in the leagues club.

Club members used to measure the rain's intensity by the number of buckets in the club, particularly the stairs. Not long after SkyCool's team completed their work Brisbane was deluged. August was the wettest in 120 years and not one bucket was seen in the club.

Arthur is so enamoured of SkyCool that he has suggested it as the solution for the nearby Leisure Centre which has applied for a State Government grant for the work and received support from the State's Deputy Premier.

Arthur has also pushed the SkyCool advantages to Qld Clubs and believes the Wynnum Manly Leagues Club success story has also led to Brisbane City Council investigating SkyCool for some of its buildings.





